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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/451,196	11/29/1999	RADESH MANIAN	081862.P149	8729

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EXAMINER

ZIA, SYED

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 01/24/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/451,196

Applicant(s)

MANIAN ET AL.

Examiner

Syed Zia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. This office action is in response to arguments filed on November 08, 2002 (Paper 4). Original application contained Claims 1-31. Applicant corrected the minor informalities as mentioned in previous office action (Paper No.3). Applicant also requested postponement in submitting the formal drawing. The arguments filed on November 08, 2002 have been entered and made of record. Presently pending claims are 1-31.
2. Applicant's arguments filed on November 08, 2002 (Paper 4) have been fully considered but they are not persuasive because of the following reasons:
3. Regarding claim 1, 9, 17, and 25 applicants argued that the cited admitted prior art (APA) [Pei] "*does not disclose dividing a hardware schedule table into N logical schedule tables, separating the N logical schedule tables by table delimiters, and assigning an identifier in one of the N logical schedules*", and also argued that "*even assuming that these tables correspond to hardware schedule tables, there are no corresponding logical schedule tables divided from such a hardware schedule table. Furthermore, there are no table delimiters separating the logical schedule tables*".

This is not found persuasive. APA teaches and describes method consists in identifying one virtual path connection which is assigned the respective cell transmit time, determining if there is a virtual circuit connection which has a high priority service assigned the cell transmit time and if so presenting an opportunity to transmit the cell over the link in the time. The available bit

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rate service virtual connection is identified and if no cell was transmitted the cell transmission is scheduled for a specific identified available bit rate service virtual circuit connection over the link. The path is identified by, indexing a schedule table line for each transmit time and retrieving a connection identifier.

And to provide a more flexible scheduling for ABR service and easier rescheduling, the second embodiment of the scheduling process uses separate tables for available bit rate (ABR) traffic. Specifically, one static table indexes VPCs (virtual path connections) and identifies high and low priority VCCs (virtual path connections) for CBR (constant bit rate) and VBR (variable bit rate) traffic. There is a separate, dynamic ABR table associated with each respective VPC. When the scheduler accesses a line of the static table for a given cell transmit time it first identifies a VPC assigned that slot for its use. The scheduler processes CBR and VBR traffic using VCC identifiers from the indexed line of the static table. The scheduler also access a dynamic ABR table for the indexed VPC to retrieve a link list and append that list to a work list associated with the VPC (Fig. 1, 7, and col.11 line 25 to col.17 line 37).

4. As a result, APA does implement a system to schedule traffic in network using logical schedule tables.

5. Applicants clearly have failed to explicitly identify specific claim limitations, which would define a patentable distinction over prior arts.

The examiner is not trying to teach the invention but is merely trying to teach the claim language in its broadest and reasonable meaning. The examiner will not interpret to read narrowly the claim language to read exactly from the specification, but will interpret the claim

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language in the broadest reasonable interpretation in view of the specification. Therefore, the examiner asserts that APA does teach or suggest the subject matter broadly recited in independent Claims 1, 9, 17 and 25. Dependent claims 2-8,10-16, 18-24, and 26-31 are also rejected at least by virtue of their dependency on independent claims and by other reason set forth in the previous office action (Paper No. 3)

Accordingly, rejections for claims 1-31 are respectfully maintained.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Pei et al. (U. S. Patent 6,272,109).

4. Regarding claims 1, 9, 17 and 25 Pei teaches and describes a system, product and method that relates to techniques and devices for scheduling asynchronous transfer mode (ATM) traffic, for different bit rate services assigned to virtual circuit connections within a plurality of virtual path connections, for transmission over an ATM link, comprising:

- dividing a hardware schedule table into N logical schedule tables, the N logical schedule tables being separated by table delimiters; and assigning an identifier in a scheduling table, the scheduling table being one of the N logical schedule tables, the identifier corresponding to a connection in the network (col. 5 line 5 to col. 7 line 18).

5. Claims 2, 4, 10, 12, 18, 20 and 26 are rejected applied as above in rejecting claims 1, 9, 17 and 25. Furthermore, Pei

- each of the table delimiters corresponds to at least one unused entry in the hardware schedule table (Fig. 9 and col. 17 line 7 to line 38);

- determining if a first entry requested by the network for the identifier is occupied; and assigning the identifier to a second entry if the first entry is occupied, the second entry being available for occupancy (col. 4 line 9 to line 41).

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6. Claims 3, 5, 11, 13, 14, 19, 21, 22 and 27 are rejected applied as above in rejecting claims 2, 4, 10, 12, 18, 20 and 26. Furthermore, Pei teaches and describes a system and method for transferring information through a communication medium and particularly, for scheduling the transmission of data packets across connections in a communication system, wherein:

- each of the N logical schedule tables corresponds to a class of service (col. 3 line 26 to line 45);

- assigning the identifier to the first entry if the first entry is available for occupancy (col. 5 line 57 to col. 6 line 7);

- assigning the identifier to a third entry if the second entry coincides with one of the table delimiters, the third entry being a next available entry found from a beginning of the scheduling table (col. 6 line 8 to line 19 and col. 18 line 15 to line 33);

- the scheduler assigns the identifier to a second entry if a first entry requested by the network for the identifier is occupied, the second entry being available for occupancy (col. 4 line 9 to line 41).

7. Claims 6, 15, 23, and 28 are rejected applied as above in rejecting 5, 14, 22 and 27.

Furthermore, Pei teaches and describes a mechanism for traffic scheduling, comprising:

- assigning the identifier to a third entry if the second entry coincides with one of the table delimiters, the third entry being a next available entry found from a beginning of the scheduling table (col. 6 line 8 to line 19 and col. 18 line 15 to line 33);

- the network is an asynchronous transfer mode (ATM) network (col. 3 line 20 to line 25).

8. Claims 7, 16, 24 and 29 are rejected applied as above in rejecting 6, 15, 23 and 28.

Furthermore, Pei teaches and describes an ATM network and virtual circuit connection, wherein:

- the network is an asynchronous mode transfer (ATM) network (col. 3 line 20 to line 25);
- the identifier is a virtual channel identifier (col. 2 line 17 to line 39).

9. Claims 8 and 30 are rejected applied as above in rejecting 7 and 29. Furthermore, Pei teaches and describes:

- the identifier is a virtual channel identifier (col. 2 line 17 to line 39).

10. Claim 31 is rejected applied as above in rejecting 7 and 29. Furthermore, Pei teaches and describes an ATM processing device, comprising:

- the network processor is a segmentation and reassembly processor (Fig. 3 and col. 8 line 23 to line 50).

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Zia whose telephone number is 703-305-3881. The examiner can normally be reached on Monday - Friday 9:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-7240.

SZ

January 13, 2003


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100